IN THE SPECIFICATION:

The specification as amended below with replacement paragraphs shows added text with underlining and deleted text with ~~strikethrough~~.

Please REPLACE the paragraph beginning at page 11, line 18, with the following paragraph:

FIG. 5 is an explanatory diagram of a communication form using a packet relay apparatus of the present invention. This communication form represents an exemplary case of communication between LANs 11-1 and 11-2 by way of an IP network 18 such as WAN or Internet. The LAN 11-1 comprises a node 10-1 and routers 14-1 and 14-2. The LAN 11-2 comprises a packet relay apparatus 12 of the present invention in addition to a node 10-2 and routers 16-1 and 16-2. The packet relay apparatus 12 includes two 10-BASSET interfaces 2, one of which is associated with the node 10-2 side and the other of which is associated with the routers 16-1 and 16-2 side. Herein, the node ~~10--2~~ 10-2 side when viewed from the packet relay apparatus 12 of the present invention is defined as the inside, whereas the routers 16-1, 16-2 side is defined as the outside. By providing the LANs 11-1 and 11-2 with the routers 14-1, 14-2 and 16-1, 16-2, respectively, in this manner, interface protocol based communications between the two LANs 11-1 and 11-2 can be effected by way of paths 20-1 and 20-1 extending through the respective routers. Upon receipt of a packet from the node 10-2, the packet relay apparatus 12 of the present invention disposed in the LAN 11-2 classifies an application to which the packet belongs and provides a control of the communication path on a class-by-class basis. This embodiment makes use of the path 20-1 for the business application communication, i.e., for relatively important communication of the port No. 472 with TCP-IP protocol, but uses the path 20-2 for the other types of application communications. By using the path 20-1 as the path dedicated to the important communications such as the business application communication in this manner, it is possible to achieve a band assurance and a response assurance. The packet relay apparatus 12 of the present invention makes a periodical check of communications through the paths 20-1 and 20-2, and if it is detected that the communication has become impossible, then it changes over all the communications to be made through the normal path. If it is detected that the path 20-1 business application communication for example has become impossible, all the communications are changed over to be made through the path 20-2 whereby the path 20-2 can serve as a backup path of the path 20-1, thus assuring communication reliabilities.

Please REPLACE the paragraph beginning at page 15, line 21, with the following paragraph:

In the class processing unit 40 provided in the frame processing unit of FIG. 6, upon the receipt of the packet from the inside, the class table 34 is referred to by the combination of the protocol type obtained from the reception packet and the inside and outside port Nos. so that determination is made of the corresponding class name, e.g., the class name "business" or "default". After the determination of the application class to which the packet to be relayed from inside to outside belongs through the reference to the class table 34 of FIG. 7, reference is made to an address translation rule table 36 depicted in FIG. 10 to perform the address translation of the packet source address into the network address corresponding to the class. The address translation rule table 36 of FIG. 10 includes the class name, address translation and gateway. In the class name "business", the address translation "10. 1. 2. 0" and the gateway "10. 1. 2. 1" are set whereby communication is made by use of the path 20-1 of FIG. 25. In contrast with this, the address translation "10. 1. 3. 0" and the gateway "10. 1. 3. 1" are entered for the class name "default" so that communication with the LAN 11-1 is effected by use of the path 20-2 shown in FIG. 5. It is to be noted that each address entered into the address translation rule table 36 will become clear from the description which will be made later.

Please REPLACE the paragraph beginning at page 16, line 20, with the following paragraph:

After the address translation corresponding to the class name of the address translation rule table 36 of FIG. 10, the resultant packet is sent to the gateway corresponding to the thus translated network address. After the completion of the packet sending, updating is effected of an address translation table 38 as shown in FIG. 11. The address translation table 38 includes the protocol type, pre-translation address and port No. and post-translation address and port No. The address translation table 38 is initially vacant and after the completion of the packet relay, the results of the address translation are entered therein in succession. For this reason, after the second time or later, upon the reception of the packet from the inside, the address translation table 38 is ~~fiet~~ first retrieved by use of the pre-protocol translation address and port No. Then the address and the port No. after the corresponding translation are acquired so that address translation can be effected only by the retrieval of the address translation table 38 for the same application packet from the same node, without using the class table 34 of FIG. 7 and the address translation rule table 36 of FIG. 10. In the absence of the entrance into the address translation table 38, the class name is determined by reference to the class table 34 of FIG. 7

and then the address translation and the gateway designation are effected by reference to the class name of the address translation rule table 36 of FIG. 10, after which inside to outside sending is effected.

Please REPLACE the paragraph beginning at page 18, line 10, with the following paragraph:

Referring to FIG. 1, description will then be made of the class based communication path control by the packet relay apparatus 12 of the present invention. In cases where there exist two paths 20-1 and 20-2 extending from the LAN 11-2 to the destination LAN 11-1, the business application packet is translated into a subnet address ~~(10, 1. 2. 2)~~(10.1.2.2) by the packet relay apparatus 12 of the present invention, and the other application packets are translated into a subnet address (10. 1. 3. 2). This enables the destination LAN 11-1 to see the LAN 11-2 in the network of the IP subnet address differing depending on the class. For example, physically, for the business application the packet from the same LAN 11-2 looks as if it comes from the subnet address (10. 1. 2. 2), whereas for the other application packets the packet looks as if it comes from the subnet address (10. 1. 3. 2). As a result of this, the LAN 11-2 allows the business application packet to be returned to the subnet address (10. 1. 2. 2) and allows the other application packets to be returned to the subnet address (10. 1. 3. 2). Such a communication separately using the two paths 20-1 and 20-2 on a class basis follows the ordinary IP routing technique, so that mere arrangement of the packet relay apparatus of the present invention on the LAN 11-2 side achieves the path control separately using the paths 20-1 and 20-2 on a class basis corresponding to the type of the applications.

Please REPLACE the paragraph beginning at page 18, line 10, with the following paragraph:

Herein, a case is exemplarily shown where the address configuration in the FIG. ~~1~~5 communication form is that of FIG. 12 for example. The address configuration of FIG. 12 includes nodes 10-1, 10-2 and routers 14-1, 14-2, 16-1 and 16-2, as well as the packet relay apparatus 12 associated with the internet, address and the network mask. In this case, the network mask serves to extract the network address portion of the address, with the address consisting of 8-bit four blocks, with the network mask having first three blocks of bit 1, namely, of 255 in decimal, and having last block of 0. Thus, by acquiring AND of the address and the network mask, a true network address can be extracted. Herein, the nodes 10-1, 10-2, the routers ~~14-1~~14-1, 14-2, 16-1, 16-2 have address configurations in conformity with the ordinary IP protocol, and the packet relay apparatus 12 of the present invention allows the inside to have

a single address for the node 10-2 and allows the outside to have two addresses "10. 1. 2. 2" and "10. 1. 3. 2" for the paths 20-1 and 20-2.

Please REPLACE the paragraph beginning at page 29, line 12, with the following paragraph:

FIG. 18 is an explanatory diagram of the communication form in the cases where the packet relay apparatus 12 of the present invention is applied to the ATM network. In this form, the communication between the LANs 11-2 and 11-1 is implemented by way of an ATM network 62. The LAN 11-1 is provided with the node 10-1 and the router 14-1, and the LAN 11-2 is provided with the packet relay apparatus 12 of the present invention. In such an ATM network 62, a plurality of paths 64-1 and 64-2 are disposed for the same destination so that ABR, VBR, CBR, UBR or other service level and assurance band parameters are provided for each of the paths 64-1 and 64-2, to achieve a utilization of a securer quality of service QOS. Herein, with a virtual path ID ~~(PVI)~~(VPI) = 0 and a virtual circuit ID (VCI) = 100, the path 64-1 is set with CBR (Constant Bit Rate) of 1 Mbps, and simultaneously the path 64-2 is formed with VPI/VCI = 0/200 and CBR of 2 Mbps. In this case, for the application class name "business", the packet relay apparatus 12 of the present invention allocates a subnetwork address "10. 1. 2. 1" to the path 64-1 and allocates a subnetwork address "10. 1. 3. 1" to the path 64-2, whereby the LAN 11-2 looks to have two different subnets when viewed from the LAN 11-1, to thereby establish a communication with the paths 64-1 and 64-2 that are controlled on a class-by-class basis.